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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,767	06/11/2001	Phillip S. Wilson	P281421	9618
909	7590	03/05/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			OMGBA, ESSAMA	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	

3726

DATE MAILED: 03/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,767

Applicant(s)

WILSON, PHILLIP S.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The declaration filed on January 20, 2004 under 37 CFR 1.131 has been considered but is ineffective to overcome the Bagrodia et al. (US Patent 6,337,046) reference.
3. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Bagrodia et al. reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). There are no included facts showing a completion of the invention in this country or in a NAFTA or WTO member country before the filing date of the application on which the U.S. patent issued. As stated in MPEP § 715, "the showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to filing of the application. Original exhibits of drawings or records, or photocopies thereof must accompany and form part of the affidavit or declaration or their absence satisfactorily explained".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al. (US Patent 5,527,581) in view of Bagrodia et al. (US Patent 6,337,046).

Sugawara et al. discloses a method for blow molding large parts using parisons reinforced with inorganic filler or glass fiber, see column 2, lines 32-47, column 3, lines 3-7 and 64-67 and column 4, lines 1-50. Sugawara et al. does not disclose the reinforcement particles comprising less than 15% of a total volume of a plastic melt, at least 50% of the reinforcing particles having a thickness of less than 20 nanometers, and at least 99% of the reinforcement particles having a thickness of less than about 30 nanometers. However Bagrodia et al. teaches a plastic melt used in blow molding containers wherein the plastic melt is reinforced with particles having a thickness of less than 2 nanometers, wherein the reinforcement particles representing from about 0.5 to about 20 weight percent of the composite melt, see column 3, lines 5-15. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have reinforced the parison of Sugawara et al. with reinforcement particles as taught by Bagrodia et al., instead of the conventional inorganic fillers or glass fibers, in order to provide a cost-effective method of producing articles made from nanocomposite compositions, the articles being suited for use in applications requiring molded parts.

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Applicant should note that 100% of the reinforcement particles of Bagrodia et al. are less than 30 nanometers. Also with the reinforcement particles representing from about 0.5 to about 20 weight percent of the composite melt, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the reinforcement particles would comprise less than 15% of the total volume of the plastic melt. Applicant should also note that the various blow molding steps recited in the claim are conventional in the art and the blow molded part of Sugawara et al. weighs at least 2 pounds and has a total surface area of at least 400 sq. inches.

6. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al./Bagrodia et al. as applied to claim 1 above, and further in view of Noba et al. (JP 410244889).

With regards to claims 2 and 3, Sugawara et al./Bagrodia et al. discloses a method for blow molding large parts such as interior support panels for automobiles as shown above. Although Sugawara et al./Bagrodia et al. does disclose the part being an integrally formed radiator and light support structure, however it is known to mold a radiator support structure that includes a radiator frame section with apertures to secure a motor vehicle radiator to the support structure with light receiving recesses with light receiving apertures 11 for securing lights to the support structure, the lights comprising head lights as attested by Noba et al., see abstract and figures 1 and 3-6. Therefore it would have been obvious to blow mold a radiator and light support structure using the method of Sugawara et al./Bagrodia et al., in light of the teachings of Noba et al., in

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order to efficiently manufacture the radiator support structure and save on cost of manufacture.

For claim 4, Applicant should note that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included recesses constructed to mount parking lights and other elements of a front fascia of an automobile.

For claims 5 and 6, Applicant should note that forming the apertures in the frame or the recesses after the part is removed from the mold assembly is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in forming the apertures in the frame or in the recesses after the part is removed from the mold assembly versus forming them during the molding process as disclosed by Noba et al.

For claim 7, Applicant should note that the radiator support structure is conventionally nestingly disposed with respect to a front fascia of a motor vehicle.

7. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al./Bagrodia et al. as applied to claim 1 above, and further in view of Petrelli (US Patent 5,000,333) and Plant (US Patent 5,649,587).

Sugawara et al./Bagrodia et al. discloses a method for molding large parts as shown above except for the part being a substantially hollow bumper for a motor vehicle, the interior of the bumper communicating with a fluid consuming component of the motor vehicle wherein the bumper is filled with fluid to serve as a fluid reservoir for the fluid consuming component. However Petrelli teaches a bumper 11 with a washer

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fluid reservoir 18 in the bumper, see figure 1 for example. Although Petrelli uses a separate reservoir for the washer fluid, it is however known to blow mold vehicle hollow components such as radiator fan shrouds, which serve as reservoirs for fluids such as coolant fluid, or washer fluids as attested by Plant, see column 1, lines 5-9, and 30-50 and figures 1 and 5. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have blow molded the part of Sugawara et al./Bagrodia et al. as a hollow bumper with fluid reservoirs, in light of the teachings of Petrelli and Plant, in order to save space in the engine compartment and save on manufacturing cost by combining plural parts.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al. in view of Usuki et al. (US Patent 4,889,885).

Sugawara et al. discloses a method for blow molding large parts using parisons reinforced with inorganic filler or glass fiber, see column 2, lines 32-47, column 3, lines 3-7 and 64-67 and column 4, lines 1-50. Sugawara et al. does not disclose the reinforcement particles comprising less than 15% of a total volume of a plastic melt, at least 50% of the reinforcing particles having a thickness of less than 20 nanometers, and at least 99% of the reinforcement particles having a thickness of less than about 30 nanometers. However Usuki et al. teaches polymers reinforced with nanocomposite particles having a layer thickness of 0.7 to 1.2 nanometers, as opposed to inorganic fillers, the resulting composite article being suitable for use as automotive parts, aircraft parts and building material, with the reinforcement particles representing about 10% by weight of the composite material, see column 1, lines 7-15 and 61-68, column 2, lines 1-

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18, column 3, lines 15-48 and column 4, lines 18-39. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have reinforced the parison of Sugawara et al. with reinforcement particles as taught by Usuki et al., instead of the conventional inorganic fillers or glass fibers, in order to provide a cost-effective method of producing articles made from nanocomposite compositions, the articles exhibiting superior mechanical characteristics, heat resistance, water resistance and chemical resistance. Applicant should note that 100% of the reinforcement particles of Usuki et al. are less than 30 nanometers. Also with the reinforcement particles representing from about 10% weight of the composite, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the reinforcement particles would comprise less than 15% of the total volume of composite. Applicant should also note that the various blow molding steps recited in the claim are conventional in the art and the blow molded part of Sugawara et al. weighs at least 2 pounds and has a total surface area of at least 400 sq. inches.

9. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al./Usuki et al. as applied to claim 1 above, and further in view of Noba et al.

With regards to claims 2 and 3, Sugawara et al./Usuki et al. discloses a method for blow molding large parts such as interior support panels for automobiles as shown above. Although Sugawara et al./Usuki et al. does disclose the part being an integrally formed radiator and light support structure, however it is known to mold a radiator support structure that includes a radiator frame section with apertures to secure a motor



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vehicle radiator to the support structure with light receiving recesses with light receiving apertures 11 for securing lights to the support structure, the lights comprising head lights as attested by Noba et al., see abstract and figures 1 and 3-6. Therefore it would have been obvious to blow mold a radiator and light support structure using the method of Sugawara et al./Usuki et al., in light of the teachings of Noba et al., in order to efficiently manufacture the radiator support structure and save on cost of manufacture.

For claim 4, Applicant should note that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included recesses constructed to mount parking lights and other elements of a front fascia of an automobile.

For claims 5 and 6, Applicant should note that forming the apertures in the frame or the recesses after the part is removed from the mold assembly is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in forming the apertures in the frame or in the recesses after the part is removed from the mold assembly versus forming them during the molding process as disclosed by Noba et al.

For claim 7, Applicant should note that the radiator support structure is conventionally nestingly disposed with respect to a front fascia of a motor vehicle.

10. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al./Usuki et al. as applied to claim 1 above, and further in view of Petrelli and Plant.

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Sugawara et al./Usuki et al. discloses a method for molding large parts as shown above except for the part being a substantially hollow bumper for a motor vehicle, the interior of the bumper communicating with a fluid consuming component of the motor vehicle wherein the bumper is filled with fluid to serve as a fluid reservoir for the fluid consuming component. However Petrelli teaches a bumper 11 with a washer fluid reservoir 18 in the bumper, see figure 1 for example. Although Petrelli uses a separate reservoir for the washer fluid, it is however known to blow mold vehicle hollow components such as radiator fan shrouds, which serve as reservoirs for fluids such as coolant fluid, or washer fluids as attested by Plant, see column 1, lines 5-9, and 30-50 and figures 1 and 5. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have blow molded the part of Sugawara et al./Usuki et al. as a hollow bumper with fluid reservoirs, in light of the teachings of Petrelli and Plant, in order to save space in the engine compartment and save on manufacturing cost by combining plural parts.

### ***Response to Arguments***

11. Applicant's arguments filed on January 20, 2004 have been fully considered but they are not persuasive. Reasons have been provided above as it relates to the filed declaration. Furthermore new grounds of rejection have also been presented.

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**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eo   
February 10, 2004

